

PROGRAMMABLE SLEW RATE CONTROL FOR DIFFERENTIAL OUTPUT

Abstract

A programmable technique is used to control the slew rate of a differential output buffer. A method controls the slew rate (SR) by changing an "on" resistance of the switches used to steer the current. This can be accomplished by (i) using different size switches or (ii) changing the slew rate of the predrivers which drive the final switches. The latter approach has the advantage that it only temporarily increases the "on" resistance, which does not cause any headroom problems after the transient. A specific application is for the differential outputs of a programmable logic integrated circuits.